Conclusion: Our data suggest that children contacting with small quantities of CMP or exclusively breastfed (Group B and A, respectively) might have a higher risk of CMA when compared with children exposed to high quantities of CMP (Group C). It will be important to increase the sample size in order to confirm these results.

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Anaphylaxis caused by ingestion of persimmon (*Diospyros kaki*)

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Background: *Diospyros kaki*, originally cultivated in China and Japan, was introduced in Europe in the mid of 19th century. Allergy to this fruit is extremely rare and to date there are only six published cases with documented IgE-mediated reactions.
Clinical case: We describe a case of a 24-year-old woman who suffered of hay fever, without any previous food allergy. Persimmon fruit was frequently a part of her diet. In October of 2007 the patient experienced lip pruritus and oedema immediately after eating raw persimmon. Some minutes later she felt dizzy, vomited and started abdominal pain. The symptoms responded promptly to endovenous corticosteroid and anti-H1. The patient suffered a similar episode 1 month later also immediately after ingestion of raw persimmon. Since then she eliminated this fruit from her diet. Skin prick tests were positive for Dermatophagoides and Grass pollen. Skin prick-to-prick tests performed with raw persimmon pulp and peel were both positive (12 and 9 mm respectively). Serum specific IgE for *Dyospiros kaki* was 0.7 kU/l and for *Lolium perenne* 6.7 kU/l. SDS PAGE immunoblotting revealed binding bands with the following molecular weights: 1)incubation with extract of *Lolium perenne* pollen without 2-mercaptoethanol – 97, 60, 32 and 28 kDa; with 2-mercaptoethanol – 68, 32, 30 kDa 2)incubation with extract from *Diospyros kaki* without 2-mercaptoethanol – no IgE bands to mention; with 2-mercaptoethanol 40 kDa and 28–30 kDa (a very faint band). Study performed with Immuno Solid-phase Allergen Chip (ISAC®) identified the presence of specific IgE for rDer f 1, rLol p 1 e rPhl p1.0102 and was negative for other allergens, rBet v 2 included.
Discussion: This is the report of a case of anaphylaxis to ingestion of persimmon fruit. In five of six previously reported cases of allergy to *Diospyros kaki* there was sensitisation to birch pollen and in four to grass pollen. In our patient there was no evidence of sensitization to birch pollen allergens. The immunoblotting study of serum of our patient incubated with *Diospyros kaki* extract in reducing condition permitted to identify a protein with molecular weight of 40 kDa. There was no similar protein when serum was incubated with Lolium perenne extract. To our knowledge, this protein was not previously documented in persimmon fruit allergic patients.

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Evolution of the prevalence of *Anisakis simplex* allergy after twelve years

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Background: *Anisakis simplex* allergy was first considered a common cause of urticaria and anaphylaxis in 1995. In recent years a series of measures have been taken to detect and prevent these clinical symptoms, following the European Regulations. This study covers the evolution of the prevalence of *Anisakis simplex* sensitization in our allergy clinic over the last 12 years.
Methods: In 1996, we collected data from 87 patients, who were referred for the first time to the allergy consultation by different pathologies of allergy, and in 2008 we collected data from another 86 patients. In addition to a complete medical history that included the consumption habits of fish, they were subjected to a prick test with *Anisakis simplex*, and the total IgE and specific IgE were determined.
Results: In 1996, 95% of patients consumed fish on a regular basis, compared to 97.7% in 2008. Currently, 39.5% of patients consume only frozen fish, which did not happen in 1996. The prevalence of clinical allergy found in the 2008 study was 16.28% and the subclinical sensitization 33.72%, compared to 5.7% and 23% respectively 12 years ago. In 1996 the average total IgE measured 169 kU/l (SD: 309), compared to 218.22 kU/l (SD: 327.57) in 2008. Specific IgE was positive in 19 (21.8%) patients in 1996, and in 37 (43%) patients in 2008, averaging 11.2 kU/l (SD: 22.8) and 12.15 kU /l (SD: 21.90) respectively.
Conclusions: This study indicates that there has been an increased prevalence of clinical and subclinical sensitization to *Anisakis simplex* in comparison from 1996 data, despite the introduction of frozen seafood in the diet.

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Self-reported food allergy prevalence in outpatients attending different consultations

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Background and aim: The estimated food allergy prevalence after the challenge test is 2% in the overall population and 8% in children. In several epidemiological studies, self-reported food allergy ranges between 15–35%, but there are no national studies in Portugal about this issue. Our aim was to evaluate the prevalence of self-reported adverse reactions (allergies and/or intolerance) to foods in outpatients attending different consultations.
Methods: Questionnaires were distributed to patients while waiting different consultations (Cardiology, Gastroenterology, Internal Medicine, ENT, Endocrinology, Nephrology, Pneumology and Immunoallergy). It was asked: gender, age, personal history of allergy and characterisation of self-reported adverse reactions of foods, if any (which foods, age of beginning, clinical symptoms, need to seek medical assistance, food eviction and/or tolerance).
Results: A total of 385 questionnaires were distributed and 207 patients (53.8%) answered it. The 207 patients included in this study (55.1% female, 44.9% male) had an average age of 50.4 ± 20.6. 40.1% of these patients reported a personal history of allergic disease. 25/202 patients (12.4%), with an average age of 48.0 ± 19.0, self-reported at least one symptom after the ingestion of food. However, only 15 out of these 25 patients (7.2% of the total group) described symptoms suggesting food intolerance/allergy (average age 41.8 Π 17.4 years, 73.3% female). The symptoms began at an average age of 25.8 ± 15.6. 73.3% of them had a personal history of allergic disease. The symptom distribution was as follows: digestive (53.3%), coetaneous (46.7%) and respiratory (26.7%). The involved foods were: fish (33.3%), fresh fruits (26.7%), tree nuts (20%), cow's milk (13.3%), seafood (13.3%), meat (13.3%) and pulses (13.3%). 53.3% asked for medical assistance. Food eviction was reported by 93.3% (14/15) of the patients. Later tolerance was reported by two patients.
Conclusion: The prevalence of self-reported food intolerance/allergy in our study was 7.2%, lower than that reported in the liter-

ature. The distribution of symptoms and involved foods in our data was similar to other epidemiological studies. Despite having self-reported symptoms, half of them did not ask for medical assistance. To improve the knowledge of the real impact of food allergy, educational programmes directed towards general population and general practitioners should include this pathology.

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Fruits and nuts allergy over time – a case report

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The authors describe a case report of a 15-year-old female presented with a food allergy to multiple families. The patient had a history of transient allergy to egg and cow's milk protein and intermittent rhinitis in childhood. There were no asthma related symptoms. She reported, since the age of 11 years, several episodes of oropharyngeal pruritus, facial angioedema and generalized urticaria, associated at first with ingestion of peach, pineapple, cherry and grenadine and, over the following 2 years, related to many other common fresh fruits. At the age of 13, she also complained of abdominal colic immediately after apple and pear ingestion. The patient experienced oral allergy syndrome with walnut, almond and Brazil nut and, later on, facial angioedema upon accidental exposure to tree nuts. She ingested leguminosae regularly without symptoms and had no latex-related episodes. In the study performed, sensitization to airborne allergens was identified: artemisia, quenopodium, plantago and salsola. Skin prick tests (SPT) with standardized commercial extracts were positive to: apple, pear, strawberry, peach, apricot, papaya, mango, kiwi, Brazil nut, walnut, hazelnut, peanut, lentil, sesame, bean, chickpea and lupine. SPT was negative to latex. Skin prick-prick tests were positive to cranberry and kiwi. Serum specific IgE (kU/l) (Phadia®) measured: apple-15.6; pear-11.0; cherry-8.7; peach-15.5; plum-3.5; orange-6.84; passionfruit-1.7; kiwi-0.22; pineapple-1.12. As the patient had never eaten kiwi before, although sensitized, an open oral challenge was performed, which was negative. She was recommended to ingest 1 kiwi per day and a vitamin supplement, as well as to avoid all other fresh fruits and tree nuts. After 9 months, the patient began to experience abdominal colic immediately after ingesting kiwi, but maintains the daily intake and has no other symptoms. This case shows the possible progressive nature of food allergy and supports the role of oral provocation challenge when advising for dietary restrictions.

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Family history of allergic disease and a result of oral food challenge in children with food hypersensitivity

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Background: Food hypersensitivity is an effect of genetic and environmental interactions. The aim of the study was to assess frequency of positive family history of allergic disease in children with positive oral food challenge.
Methods: A total of 332 oral food challenges were performed: 291 with cow's milk and 41 with other kinds of food. Three age groups were analyzed: 81 children aged <3 years of age, 165 children aged 3–6 years of age and 86 children aged above 6 years of age. 87.96% of patients were citizens and 12.05% were from the rural areas.
Results: Out of 332 food challenges 79 were positive and 212 were negative. Children with positive result of food challenge (FC(+)) were in a higher risk of allergy (32.3%) in comparison with children whose result was negative (FC(-)) (23.81% *versus* 18.81%; $P < 0.05$). Positive family history of allergy was detected in 71.08% children with positive results of food challenge (FC(+)) and in 58.97% children with negative results of food challenge (FC(-) ($P < 0.05$). Father's allergy was found in 21.69% of children with FC(+) and in 11.54% of children with FC(-) ($P < 0.05$). Only airways allergy (allergic rhinitis and asthma) was responsible for this result (18.07%*versus* 8.12%, $P < 0.05$). Children with FC (+) did not differ from children with FC(-) in serum level of IgE, IgA, IgG, IgM and time period of breast feeding. First exposition on hen eggs and gluten at the age above 12 months was more frequent in children with FC(+) than in FC(-) children respectively: 35.53% *versus* 20.77%;($P < 0.05$) and 62.82% *versus* 46.19%; ($P < 0.05$).
Conclusion: Positive family history of allergic diseases, especially father's history of allergic rhinitis and asthma may have an influence on oral food challenge result.

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Allergy to extensively hydrolysed formulas

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Background: Cows milk allergy (CMA) is the most common food allergy among Portuguese children. Available substitutes include extensively hydrolyzed formulas (eHF), amino-acid based and vegetable formulas. Reports on eHF hypersensitivity are scars and conclusions are contradictory. The authors report 5 cases of allergy to eHF in children.
Case Reports: Case 1 – 3-year-old boy, with exclusive breastfeeding (EBF) for 1 month; tolerated CMP till 6 months. Admitted in our outpatient clinic with 6 months for vomiting after yogurt ingestion. Developed similar reaction with whey eHF. Case 2 – 2-year-old boy, with EBF for 4 months. After first ingestion of CMP developed facial urticaria and angioedema. Admitted in our clinic with 8 months, after 2 severe anaphylactic reactions after CMP ingestion, the last with whey eHF. SPT positive for egg white and yolk (with tolerance to egg). Case 3 – 4-year-old girl, with EBF for 4 months. Admitted in our clinic with 9 months for repetitive episodes of urticaria after CMP ingestion. Developed severe anaphylactic reaction (gastrointestinal and respiratory involvement) at 12 months after whey eHF first contact. SPT positive for egg white and yolk and gliadin (with tolerance to wheat and egg). Case 4–10 months old boy, with EBF for 6 months. Admitted in our clinic with 6 months after 2 episodes of generalized urticaria and facial angioedema after CMP ingestion. SPT positive for whey and casein eHF. Case 5 – 6-year-old girl, with EBF for 1 month. Admitted in our clinic with 6 year old for eczema exacerbation after CMP ingestion for the last 5 years and severe anaphylaxis, with 6 years. The patient has multiple food allergy. SPT positive for egg white and yolk, oat milk. Specific IgE positive for walnut. Good tolerance was obtained after introduction of amino-acid based formula (cases 1, 4 and 5) and soy formula (cases 2 and 3). All cases have proved allergy to whey eHF, with SPT positive for milk, MF and whey eHF. Blood results showed elevated specific IgE for milk and MF as well, in all cases. All but case 4 received whole milk formula at birth.
Discussion: Allergy to eHF is rare but poses serious constrains on children's diets. It has no apparent predisposition factors and clinical reactions vary. Tolerance